Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Performance Measurements and	)	CC Docket No. 98-56
Reporting Requirements for Operations	)	RM-9101
Support Systems, Interconnection and	)	
Operator Services and Directory Assistance	)	

COMMENTS OF SBC COMMUNICATIONS INC.

SBC COMMUNICATIONS INC.

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SUMMARY

SBC supports performance measurements; however, it feels that they cannot be imposed from the outside on a nation-wide basis. These measurements need to build on the agreements between ILECs and CLECs and between ILECs and other governmental bodies, as well as needing to respect the individual circumstances of the ILECs. The appropriate geographic level of reporting will depend on the measurement under consideration. The scope of reporting should depend on the individual process or activity being measured.

SBC generally supports pre-ordering measurements if the data is produced mechanically as opposed to manually and if the data is available on a real-time basis.

SBC agrees with most of the proposed levels of disaggregation for ordering and provisioning measurements. SBC would propose separate measurements for interconnection trunks. As SBC has already agreed with the DOJ to certain measurements, SBC can support those measurements. SBC feels that the "Percent Out of Service > 24 Hours" measurement would not be useful.

With respect to "Average Competition Interval (for CLECs)" measurement, SBC proposes measuring the end user's experience by stopping the measurement when the technician completes the work. SBC recommends that the "Percentage of Missed Due Dates" measurement not include "due time." As for the "Average Competition Intervals" and "Percentage of Missed Due Dates" measurements, SBC proposes that the measurements not reflect activities over which the ILEC has no control.

Problems exist in providing a measurement for "Average Time for Coordinated Customer Conversion." When there is no point of reference, it is difficult to see the value in trying to measure how long a switching customer is without local exchange service.

Although SBC can support most of the Order Status Measurements, it cannot support the proposed "jeopardy-notice" measurements. The existing process makes these proposed measurements impractical, not feasible, and not useful.

SBC recommends using an "Average Delay Days for Missed Due Dates Due to Lack of Facilities" measurement, in lieu of that proposed by the Commission. As for installation troubles, SBC agrees that interconnection trunks should be the eliminated from the "Percent of Troubles in Thirty Days for New Orders" measurement and that troubles should be tracked on a per-line basis, and not a per-order basis.

The provisioning of 911 and E911 emergency services is too varied to be susceptible to a nation-wide measurement. SBC could urge the Commission to respect the individual circumstances of the ILECs.

Many of the proposed repair and maintenance measurements have already been adopted by SBC through negotiations. Nevertheless, SBC opposes the disposition and cause categories proposed by LCUG.

Billing measurements is an area that needs particular attention. SBC has already agreed to performance measurements that would adequately protect competition. The Commission should not adopt measurements that do not respect the existing billing processes of the individual ILECs.

As for General Measurements, SBC can support most of them. SBC is concerned, however, that certain OS/DA measurements are not feasible.

SBC has agreed to provide the percentage of calls blocked on certain outgoing traffic. SBC proposes measuring the "average percentage of trunk blockage." SBC further proposes that the reporting threshold for blocking be the same as the blocking thresholds in Tariff F.C.C. No. 73.

As a general rule, SBC supports providing reports to the Commission, the DOJ, CLECs, appropriate state officials, and, in some cases, the general public. SBC is concerned that reporting respect competitively sensitive and proprietary information.

SBC proposes certain statistical tests, which SBC believes will provide fairer and more accurate results. SBC opposes AT&T's proposals. Those proposals would result in the unjustified transfer of millions of dollars from SBC to CLECs.

With respect to OSS interfaces, CLECs must participate in the industry-standards bodies that develop them. A flexible six-month time frame for implementation appears to be reasonable.

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Services and Directory Assistance	§	
	§	

COMMENTS OF SBC COMMUNICATIONS INC.

SBC Communications Inc. ("SBC") respectfully files these comments in response to the Notice of Proposed Rulemaking on the above-captioned subject, released on April 17, 1998. These comments are submitted on behalf of SBC and its subsidiaries Nevada Bell, Pacific Bell, and Southwestern Bell Telephone Company.

I. GENERAL ISSUES

A. Any rules adopted by the Commission should take into consideration the individual circumstances of the ILECs, as well as pre-existing agreements between ILECs and CLECs and between ILECs and governmental bodies.

Since the adoption of the Federal Telecommunications Act of 1996[1] ("Act"), SBC and other incumbent local exchange carriers ("ILECs") have entered into numerous interconnection agreements with competitive local exchange carriers ("CLECs") in which the parties have agreed to measurements for gauging the ILECs' performance. Moreover, SBC and the other ILECs have proposed and agreed to performance measurements and reporting requirements for operations

[1] 104 Pub. Law 104; 110 Stat. 56.

support systems (OSS"), interconnection, and operator services and directory assistance with state commissions and with the Department of Justice ("DOJ"). These agreements provide sufficient performance measurements and reporting requirements to allow CLECs, state commissions, and this Commission to judge whether ILECs are "providing services and facilities in a manner that favors their own retail operations over competing carriers or in a manner that favors certain competing carriers over others."[2]

Recognizing that the Commission has already determined that rulemaking is appropriate in this area, SBC urges the Commission to respect these prior agreements. The Commission should also respect the individual circumstances of the ILECs. Each ILEC has pre-existing systems and procedures in place that bear on whether the proposed rules are practical, feasible — both technically and economically — or useful. Imposing performance measurements and reporting requirements in cookie-cutter fashion on all the ILECs would not be practical, feasible, or useful. If the goal of the proposed rules is to provide useful information to the Commission and to the CLECs without imposing undue burden on the ILECs, then the Commission should not seek to "re-create the wheel." Rather, the Commission should seek to build on what has gone before.

B. The appropriate geographic level of reporting will depend on the measurement in question.

SBC contends that the appropriate geographic level of reporting will depend on the measurement at issue. As performance measurements are designed to measure the efficiency and

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[2] NPRM, ¶8.

effectiveness of processes, they should reflect how the process is actually managed. For those measures where the process channel/system is not differentiated geographically — such as, pre-ordering, ordering, billing, Operator Service ("OS") and Directory Assistance ("DA") — the measure should be reported at the highest geographic level. This is usually statewide. For those processes that are managed at a smaller geographic level — such as, provisioning — the results should be produced at lower geographic levels. Within SBC, this is usually done by region or market area. Producing these reports at the region or market area will permit evaluation of the variances that may occur due to regional uniqueness.

C. The scope of reporting should also depend on the individual process or activity being measured.

Here again, the level of disaggregation is dependent on the process or activity being measured. For most measures, especially those used to evaluate parity of service between the ILEC and CLECs, it would be appropriate to report separately by ILEC and by CLECs in the aggregate. If activities for each CLEC can be differentiated within the process, it would be appropriate to report by individual CLEC, as well. Where the system function performs indiscriminately for the ILEC's customers and for CLECs' customers, SBC could provide combined results. Indeed, where the system function performs indiscriminately for the ILEC's customers and for CLECs' customers, combined results may be the only feasible way to provide the results. If a process provides parity of service by its very nature, then no further data disaggregation need be made available. Below, SBC will address whether its performance should be reported in the aggregate or in individual categories, such as by individual CLEC and/or by affiliate.

D. Relevant Electronic Interfaces.

Concerning the appropriateness of providing data for each type of electronic interface, SBC has agreed with the DOJ — as well as with CLECs in certain interconnection agreements in Texas, Missouri, Kansas — to provide results on availability for all systems used by CLECs. For SBC, these systems include CESAR, PBSM, Starwriter, SORD EASE, DataGate, Verigate, Toolbar, LEX, RMI, EDI, RAF and PRAF.[3]

Reporting performance data for access to "back-office" systems is not necessary. Because the CLECs use the same back-office systems used by SBC, parity is inherent. Reporting performance problems with these systems would not be useful because the problems impact SBC and CLECs alike. It would be more relevant to measure the CLEC's access to OSS interfaces.

Only where appropriate, performance data for each electronic system should be reported. For those measures where multiple systems provide access (e.g., pre-ordering and ordering), reporting data for each electronic interface is practical.

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[3] SBC has attached a "Glossary of Terms," defining these acronyms, for the Commission's convenience.

II. PROPOSED MEASUREMENTS

A. Pre-Ordering Measurements.

SBC has already made available to CLECs a number of interfaces to access pre-ordering information. These interfaces maintain data on each pre-order transaction. The results can be produced for all real-time pre-order activity by function and by interface. As a full complement of results becomes available, the Commission's proposed sampling approach would not be necessary.

Pre-order data that is not available on a real-time basis (i.e., facility availability) should be excluded from pre-ordering measurements. On orders of fewer than 15 lines, after the service order is generated, this type of information is actually assessed automatically. Since CLEC orders and ILEC orders utilize essentially the same provisioning process with no differentiation by type of order, by the nature of the process, the information is available at parity. For larger orders — over fifteen lines — it is necessary to evaluate facility availability manually. The time required to complete this assessment could vary significantly by type of service and by the complexity of the request, rendering any data comparisons meaningless.

Mechanized rejected-query notices, with no manual intervention, occur rapidly and automatically. This is the process for Starwriter and SORD — as these systems edit the service request on-line. Because they require communication and intervention by the CLEC, rejected-query notices that require manual intervention are much slower. SBC is currently assessing its ability to measure the response time needed to reject a pre-order query sent through an electronic interface. Non-mechanized rejects require manual tracking and are not cost effective. Indeed, SBC contents that requiring manual tracking would be cost prohibitive. Because CLECs have

several mechanized options for ordering, which permit SBC to gather and provide data on rejects, SBC should not be obligated to provide data on rejects when CLECs choose to enter orders manually. This would be an unnecessary expense on SBC.

B. Ordering and Provisioning Measurements.

a. Disaggregation of Data.

With respect to the categories in Appendix A, SBC agrees with most of the proposed levels of disaggregation for ordering and provisioning measurements. As the process of ordering, providing, and maintaining interconnection trunks is distinctly different from the processes used for services provided to individual end users, SBC has proposed separate measurements for interconnection trunks.

As for evaluating the provisioning and maintenance performance for unbundled network elements ("UNEs"), SBC believes that disaggregation of data by unbundled loop, unbundled switching, and unbundled dedicated transport would be appropriate. Additionally, SBC has already agreed with the DOJ to measure unbundled loop by the following categories: 2-wire analog loop, BRI loop (ISDN), and PRI loop (ISDN).

Interconnection trunks should be measured as a separate category. Unlike resold services and UNEs, which are designed to provide service to an end user, interconnection trunks interconnect networks, providing service to many users. The processes for providing and maintaining interconnection trunks involve many unique activities, rendering most of the measurements for resale products and UNEs inappropriate for interconnection trunks. For example, facilities are reserved for interconnection trunks before a Firm Order Confirmation

("FOC") return on the service request. Thus, measuring interconnection orders' "hold for facilities" is unnecessary.

Similarly, the "Percent Out of Service < 24 Hours" measurement does not apply for interconnection trunks, as these facilities are virtually always restored in a few hours. What's more, when a trunk is out of service, this does not mean that the entire trunk *group* is out of service. If the trunk group is not out of service, then traffic can still be routed over the trunk group. Whether it is critical to restore a trunk in less than 24 hours will depend on whether the load on the trunk group requires all trunks to be in service. Consequently, the proposed measurement would not be meaningful. There are other measurements — such as "Average Trunk Blocking" — that would detect deficiencies in trunk sizing.

b. Order Completion Measurements.

SBC has proposed to measure "Average Completion Interval (for CLECs)" in a slightly different way than proposed by the Commission. Instead of measuring from "receipt of a valid order" to "time completed order is returned to the CLEC," SBC proposes to measure the end-user customer's experience. This is how SBC measures its own performance for its retail customers. In lieu of the "time completed order is returned," SBC proposes stopping the measurement when the technician actually completes the work and the end user has service. There is some interval of time between order completion and CLEC notification. It is more meaningful to measure the experience for the end user than it is to measure when administrative notifications are complete. Moreover, SBC measures separately the interval required to send a completion notification. Using these two measures more accurately reflects the process involved.

With respect to the proposed "Percentage of Missed Due Dates," SBC recommends that this measure not include measurement of "due time." For SBC's retail customers, it currently commits to a due *date*, not a due time. Similarly, unless a coordinated cut is involved, the FOC to a CLEC only confirms a due *date*. To measure performance relative to a due time presents two problems:

- No parity for this measurement — or the supporting process — exists for our retail customers; and,
- Provisioning rarely occurs at an exact due time, but rather within some reasonable interval of time.

"Due time" for resale migration is irrelevant because the end user's service is not interrupted.

For both "Average Completion Intervals" and "Percentage of Missed Due Dates" the ILEC should be allowed to exclude orders canceled or supplemented by the CLEC. Additionally, in discussions with the DOJ, SBC proposed excluding "customer-requested due dates greater than the offered intervals" from the Average Completion Interval measurement and "customer-caused misses" from the Percentage of Missed Due Dates measurement. Both of these exclusions reflect activities by others over which the ILEC has no control.

SBC agrees that "Average Completion Interval" and "Percent of Due Dates Missed" provide a complete picture of an ILEC's ability to provision orders for CLECs in a non-discriminatory fashion. Additionally, in discussions with the DOJ, SBC has already agreed to two other measures to enhance the evaluation of the ILECs' provisioning efficiency. Those measures are:

- "Percent Installations Completed within the Standard (Offered) Interval," which measures the frequency of order completion within the offered interval by major product type; and,
- "Percent Company Missed Due Dates Due to Lack of Facilities" since a lack of facilities is the most common cause of company-missed due dates.

c. Average Time for Coordinated Customer Conversions.

Although SBC agrees on the importance of minimizing the impact on customers when they choose to change service providers, SBC does not recommend measuring the "Average Time for Coordinated Customer Conversion." Trying to measure the actual outage time is difficult, labor-intensive, and not necessarily meaningful for the following reasons:

- No mechanized way currently exists to track cut-over intervals for unbundled loops and, thus, the data would have to be manually recorded; and,
- A coordinated conversion implies there are at least two carriers involved — usually the CLEC and the ILEC — though others, including equipment vendors, may be part of the process.

If that were not enough, there are factors outside of the ILEC's control — such as a busy circuit — that could account for delays in completion time, and there is no corresponding measurement for the conversion of ILEC customers by which to assess the significance of the data. When there is no point of reference, it is difficult to see the value in trying to measure how long a switching customer is without local exchange service when the competing carrier utilizes the ILEC's unbundled loop. The existence of periods of time without local exchange service — in and of themselves — would not necessarily be indicative of discrimination.

d. Order Status Measurements.

SBC agrees that the following proposed measurements would be practical and useful:

- "Average Reject Notice Interval,"
- "Average Firm Order Completion (FOC) Interval," and
- "Average Completion Notice Interval."

SBC does not support, however, the proposal to require the "Average Jeopardy Notice Interval" or the "Percentage of Orders Given Jeopardy Notices." While providing end-user service, jeopardy situations are rarely identified before the point of service installation and are usually associated with lack of good, working facilities. Often, the installation technician is not able to provide a jeopardy notice until the due date and many times not until after the commitment is missed. The jeopardy notice is often sent after the commitment is missed. From a measurement standpoint, it would be difficult to determine how often an advanced-jeopardy notice was provided to a CLEC; therefore, any measurement of a jeopardy-notice interval would not be meaningful. By using "Percent of Missed Due Dates" and "Average Completion Interval," SBC does measure how frequently order commitment dates are missed to determine the effectiveness of the service order provisioning process.

SBC does not have a formalized jeopardy process for its retail customers. When a jeopardy situation arises, contacts are not always to customers. Even if the customer is contacted to establish a new due date, the time interval for this contact is not tracked. To evaluate performance of this activity, a manual tracking process would have to be put in place to capture and report this data. Measuring jeopardy notices is not practical, feasible, or useful.

e. Average Interval for Held Orders.

Instead of an "Average Interval for Held Orders" measurement, SBC recommends an "Average Delay Days for Missed Due Dates Due to Lack of Facilities" measurement. Average Delay Days Due to Lack of Facilities would measure delays in order completion associated with facility problems. Facility problems are the most common cause of missed due dates. SBC believes its measurement would capture the most relevant data regarding delayed order completion, and it would also permit comparison to retail data. Because an order cancellation can occur for any number of reasons not under the ILEC's control or otherwise related to its performance, SBC does agree that any proposed measurement should exclude orders canceled by the CLEC.

f. Installation Troubles.

To measure provisioning accuracy, SBC has already proposed using "Percent of Troubles in Thirty Days for New Orders." This is a long-standing, non-burdensome, and cost-effective measurement to capture SBC's ability to provision customer-service requests satisfactorily. It is the best measurement of the customer's actual experience.

SBC has agreed with the DOJ to provide a "Provisioning Accuracy" measurement, which compares what was requested on the service order to what was actually provided. Although it may provide some additional data, this measurement still needs further development and thus results on its effectiveness will not be available until the end of 1998. Results for "Percent of Troubles in Thirty Days" is currently available and is the same measurement used by SBC for its retail provisioning operations.

SBC can support disaggregating the "Percent of Troubles" measurement and reporting it by:

- Resale POTS: Individual CLEC, all CLECs in the aggregate, and by SBC retail for business and residence;
- Resale Specials: Individual CLEC, all CLECs in the aggregate, and by SBC retail;
- UNEs: Individual CLEC and all CLECs in the aggregate by loop type, switch port, and unbundled dedicated transport.

SBC agrees that the Commission should eliminate interconnection trunks from the "Percent of Troubles in Thirty Days for New Orders" measurement. Network failures impact many customers on the competing carrier's network, not just one specific customer.

With respect to the appropriateness of tracking troubles on a per-order basis, SBC records and processes trouble reports on a line-number basis. SBC's reporting level ensures that all lines experiencing troubles during the 30-day report window, for installation-caused trouble, are counted in the measurement. Since it is as practical, feasible, and useful as any other, SBC's reporting level should be acceptable.

g. Order Quality Measurements.

In Pacific Bell's 271 filing, SBC has already proposed to disaggregate "Order Process Percent Flow Through," reported by individual CLECs, all CLECs in the aggregate, and for Pacific Bell, with separate categories for orders entered by the CLEC and orders entered by SBC's Local Service Center ("LSC"). SBC believes this would be practical, feasible, and useful. Further disaggregation as proposed by the Commission, however, would be burdensome

and costly and would not enhance the CLECs' understanding of SBC's systems-performance capability.

SBC agrees with the Commission that ILECs reporting on the Percentage of Reject Orders is useful and SBC has offered that measurement as part of its proposed Performance Measurement Plan.

As for the "Average Submissions Per Order" measurement, SBC has proposed in Pacific Bell's 271 filing to report on "Percent Rejects and Average Time to Return Mechanized Rejects." This alternative measurement will offer CLECs appropriate information to effectively process orders. Further disaggregation would not be cost effective.

h. 911 Database Update and Accuracy.

SBC does not agree that measuring the ILECs' provisioning of 911 and E911 emergency services to competing carriers would be helpful in all cases. The appropriateness of these measurements depends upon the process the ILEC has in place for updating 911 database. As the DOJ indicated in its letter to SBC on March 6, 1998, SWBT can limit its 911 measurements to an error-clearing interval. This variance was made in light of the specific processes and procedures that are in place, ensuring that CLECs receive equivalent treatment.

Pacific Bell, however, currently does not have the exact processes in place as those of SWBT. Therefore, in Pacific Bell's 271 filing, SBC proposed to report on E911 Database Accuracy and Timeliness of Database Updates.

C. Repair and Maintenance Measurements.

SBC agrees that the "Average Time to Restore" measurement would allow SBC to monitor customer service repairs, and is consistent with its retail operations. Regarding

"Frequency of Repeated Troubles in a 30-Day Period," SBC agrees that the proposed measurement would be useful. As SBC stated above, it would be consistent with SBC's long-standing retail measurement and has been proposed in Pacific Bell's 271 filing. With respect to the "Percent of Customer Troubles Resolved within Estimated Time" measurement, SBC proposes the "Percent Missed Appointments (Maintenance)" measurement instead. SBC's measurement is consistent with SBC's long-standing retail measurement.

SBC has agreed to include the "Frequency of Trouble in 30-Day Period" (Trouble Report Rate) measurement in its maintenance performance measurements. This would measure the ratio of customer trouble reports per 100 lines in service within a calendar month and would allow for an overall picture of SBC's maintenance performance. All maintenance measurements should exclude subsequent reports — except Trouble Report Rate — and all reports charged to CPE and wiring (disposition code "12") and informational non-service affecting (disposition code"13") excludable reports.

Regarding whether ILECs should report "Percent of Customer Troubles Resolved within Estimated Time" as applied to interconnection trunks, SBC has proposed instead to measure the "Average Trunk Restoral Interval." SBC provides all customer lines, including those offered to CLEC customers, to adhere to specific transmission requirements to meet the customer's usage needs; that is, voice or data. This ensures that SBC's network operates at parity. Additionally, to assess blockage and interconnection failures, SBC's network measurements are focused on ILEC interconnection.

SBC disagrees that the Commission should require the use of disposition and cause categories, as proposed by the LCUG. SBC uses a different disposition and cause code model

for classifying maintenance troubles. To use the disposition and cause categories proposed by the LCUG would prove unnecessarily burdensome and would render analysis to retail operations difficult at best.

SBC has already proposed excluding subsequent reports on the following measures:

- Percent Missed Repair Commitments,
- Receipt to Clear Duration, Percent Out Of Service <24 Hours, and
- Percent Repeated Reports — subsequent reports generally have no value in determining specific customer service under these measures.

Nevertheless, because subsequent reports indicate overall customer satisfaction, SBC believes that including them in the overall "Trouble Report Rate" measurement would be useful. In addition, all measurements should exclude "trouble reports attributed to customer-provided (i.e., non-ILEC-provided) equipment" and "troubles identified to inter-exchange carriers and/or independent telephone companies."

D. Billing Measurements.

With respect to the Commission's proposed "Average Time to Provide Usage Records," SBC notes that, in discussions with the DOJ, Southwestern Bell Telephone Company ("SWBT") has already agreed to provide "Daily Usage Timeliness," which is a measurement of the timeliness of delivery of customer usage records. On each of the first ten workdays from the date the usage was recorded, this measurement sets out the percentage of usage records transmitted from SWBT's OSS gateway to that of the CLEC. This measurement also shows records transmitted between the tenth and the twenty-ninth work day and the percentage of records sent over twenty-nine workdays from the dates that were recorded in SWBT's usage systems. SBC

believes this report satisfies the requirement to provide "Average Time to Provide Usage Records" to competing carriers as described in NPRM's Attachment A.

SBC notes that SWBT's billing system has separate processes for local usage, exchange access, and alternately-billed usage, but cannot distinguish between retail or wholesale. Both SWBT's and its competing carrier's usage records flow through the appropriate process without discrimination. Therefore, a measure that disaggregates the Average Time to Provide Usage Records by local usage, exchange access, and alternately-billed usage would be meaningless because in that area parity already exists between SWBT's own retail usage and that of the competing carriers.

The "Daily Usage Extract" feed provides a copy of usage recordings to CLECs that have requested this service. There is no comparable process for SWBT's own retail use. The request to provide a measurement at the time SBC's retail-usage records are formatted into Electronic Interface Record ("EMI") or an equivalent format is not meaningful because it does not align with the timing of the Daily Usage Extract file creation.

While there is no comparable process for SWBT, Pacific and Nevada Bell measure the interval between when the call record is created in the switch and when the call is made available to the CLEC for use. Some CLECs retrieve their data on a daily basis; others, less frequently. In addition, some use a communications link; while others request a magnetic tape or cartridge. SBC records the distribution of days of delay in cells from 1, 2., 29, 30, 1-60, 61-90, 91-120, 121-150, 151-180, and over 180. SBC reports monthly on the percentage of calls within five days, ten days, and 30 days. SBC does not report average number of days. SBC records this information separately for resale and unbundled-switching elements and could record it for Meet

Point Billing usage, as well. Although the categories of disaggregation need to be clearly defined, SBC can report its data on a disagregated basis.

Pacific and Nevada Bell do measure the interval for their own retail messages but the stop time is the time that their retail billing system makes the message available for billing. The message is not reformatted into an EMR record. The distribution of days of delay is recorded in the same cells as for those calls made available to the CLEC. In addition, they report monthly on the percentage of retail calls within five days, ten days and 30 days.

For wholesale-bill invoices, SWBT provides different types of bill media: paper, diskette, CD-ROM, and Electronic Data Interchange ("EDI") Billing. In all cases, no differentiation is made between CLECs and SWBT retail end users. All billing media are provided in accordance with retail-tariff requirements. With one exception, SBC supports the Commission's tentative conclusion that a calculation of the "Average Time to Deliver Invoices," in accordance with the formulae presented in Appendix A, would be useful. Invoices are sent on a daily basis; therefore, the actual time invoices are transmitted is too granular. To measure the timeliness of invoice delivery, the Commission would be better served recommending a measurement of the number of days past the close of the billing cycle. In addition, since paper bills are handled by means of the same process that SBC uses for retail and wholesale bills, this measurement would focus on electronically-transmitted invoices.

For unbundled-element-bill invoices, SBC provides different billing media options, including paper, microfiche, and bill-data tape. As in the case of wholesale invoices, with the exception of the actual time the invoices are sent, SBC agrees with the Commission's tentative conclusion that the calculation of the Average Time to Deliver Invoices, in accordance with

Appendix A, would be useful. As with wholesale invoices, the number of days from the close of the billing cycle to transmission is sufficient to measure the timeliness of the unbundled-element invoice.

E. General Measurements.

a. Systems availability.

SBC believes measuring the percentage of time its electronic interfaces for each OSS function are actually operational as compared to the scheduled availability, as described in Attachment A of the NPRM, would be useful. In fact, in its discussions with the DOJ, as well as in interconnection agreements in Texas and Missouri, SBC has agreed to provide this measurement on the following interfaces: CESAR, PBSM, Starwriter, EASE, Datagate, Verigate, Toolbar, LEX, RMI, EDI, RAF and PRAF. SBC would also agree that, for those interfaces that an ILEC uses for itself, providing comparative measurements would be useful. However, on those interfaces that the ILEC does not use for itself, a standard percent availability would be a more appropriate comparison to determine whether the ILEC has provided non-discriminatory access to its electronic interfaces.

b. Center Responsiveness.

SBC contends measuring the average time to answer calls from competing carriers to an ILEC's wholesale service center, as described in Attachment A of the NPRM, would be useful. In discussions with the DOJ, and in interconnection agreements in Texas and Missouri, SBC has agreed to provide this measurement. SBC currently reports the average speed of answer to CLECs for its LSC and its Local Operations Center (LOC). This measurement starts when the customer enters the queue and ends when a SBC service representative answers the call.

c. Operator Services and Directory Assistance.

SBC agrees that it is reasonable to measure the average time it takes its own customers and those of the competing carriers to access the ILEC's operator services and directory assistance operators. In its discussions with the DOJ, and in interconnection agreements in Texas and Missouri, SBC has agreed to provide this measurement; however, it can only be reported as an aggregate of CLEC and SBC customers.

SBC does not agree that all ILECs can provide this measurement separately for the ILEC and competing carriers. SBC does not have the ability to provide the Average Time to Answer measurement separately for CLECs that use dedicated trunks to access OS/DA. For example, regardless of whether the OS/DA traffic is carried over dedicated or shared trunk groups and regardless of the carriers' identity, calls from SWBT end users and end users of other carriers using SWBT DA Services are processed by the OS system in the order they are received. When the OS switch detects a trunk seizure on a trunk carrying DA traffic, it searches for an idle operator position and, if one is available, connects the call to the position that has been idle the longest. If no operator is available, the call is time-stamped and placed in the "Calls Waiting" queue. When an operator position becomes available, the OS switch searches the Calls Waiting queue and connects the oldest call to the idle position.

F. Interconnection Measurements.

a. Trunk Blockage.

The Commission concludes that CLEC's traffic can be blocked at two points: interconnection trunk groups and common trunk groups. SBC believes that measuring the blockage on the interconnection trunks for which SBC has responsibility would be useful; that is,